



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,445	11/21/2006	Masahiro Inoue	283692US90PCT	8214
22850	7590	03/19/2009	EXAMINER	
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			IQBAL, KHAWAR	
			ART UNIT	PAPER NUMBER
			2617	
			NOTIFICATION DATE	DELIVERY MODE
			03/19/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No. 10/561,445	Applicant(s) INOUE ET AL.	
	Examiner KHAWAR IQBAL	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3-13-2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Funato et al (20060025161).

Regarding claim 1 Funato teaches a controller apparatus configured to implement paging control in which, when the controller apparatus receives a packet addressed to a mobile terminal (mobile host MH), the controller apparatus transmits a paging notification packet to a paging area of the mobile terminal (MH), so as to obtain location information on the mobile terminal (MH) and to determine a forwarding destination of the packet, the controller apparatus comprising (fig. 5, 9):

a paging area forming unit (908, fig. 9 and 20) having a plurality of algorithms (2004, 2006, fig. 20) for forming the paging area (dynamic paging area configuration algorithm, the HRA includes a reporter process 2002, and a previous location table 2004 and a current location table 2006. As the MH travels, the REPF 2002 updates the both PLT 2004 and CLT 2006 and registers the MH with a new area, para. # 0064, 0086);

wherein the paging area forming unit (908 fig. 9 and 20) is configured to form the paging area of the mobile terminal (MH 902) by an algorithm (2004, 2006, fig. 20) (para. # 0064-0065, 0086, 0145).

Regarding claim 2 Funato teaches wherein the paging area forming unit is configured to form the paging area of the mobile terminal, in accordance with a load condition or traffic distribution of the controller apparatus (para. # 0083-0085).

Regarding claim 3 Funato teaches a mobile terminal configured to implement paging control in which, when a controller apparatus receives a packet addressed to the mobile terminal, the controller apparatus transmits a paging notification packet to a paging area of the mobile terminal, so as to obtain location information on the mobile terminal and to determine a forwarding destination of the packet, the mobile terminal comprising (fig. 1-9 and 20, abstract):

an algorithm specifying unit configured to specify, to the controller apparatus, an algorithm for forming the paging area of the mobile terminal (dynamic paging area configuration algorithm, The paging area clustering agent (PCA) 920 operates to receive movement reports from mobility reporter agents of mobile hosts in communication with last hop router 904, 906. A PCA is notified by a dormant monitoring agent (DMA) of a packet arrival to a mobile host and sends paging clustering messages to the local paging agent (LPA) clusters. Once the PCA 920 receives positive or negative results from LPA clusters, the PCA notifies the DMA, para. # 0064, 0086, 0075-0077, 0111-0114); and

a paging control unit configured to perform the paging control based on information on the paging area formed by the controller apparatus based on the algorithm (dynamic paging area configuration algorithm, PCA 920 operates to receive movement reports from mobility reporter agents of mobile hosts in communication with last hop router 904, 906. A PCA is notified by a dormant monitoring agent (DMA) of a packet arrival to a mobile host and sends paging clustering messages to the local paging agent (LPA) clusters. Once the PCA 920 receives positive or negative results from LPA clusters, the PCA notifies the DMA para. # 0064-0070, 0086-0090, 0111-0114, fig. 9-12).

Regarding claim 4 Funato teaches a processing language specifying unit configured to specify, to the controller apparatus, a processing language in which an algorithm for forming the paging area is written; wherein the algorithm specifying unit is configured to specify the algorithm written in the processing language when a result of determination that the processing language can be handled is received from the controller apparatus (para. # 0051, 0073-0074, 0082).

Regarding claim 5 Funato teaches a controller apparatus configured to implement paging control in which, when the controller apparatus receives a packet addressed to a mobile terminal, the controller apparatus transmits a paging notification packet to a paging area of the mobile terminal, so as to obtain location information on the mobile terminal and to determine a forwarding destination of the packet, the controller apparatus comprising:

an algorithm specifying unit configured to specify, to the mobile terminal, an algorithm for forming the paging area of the mobile terminal (para. # 0064, 0086, 0145, fig. 9-12 and 20); and

a paging control unit configured to perform the paging control based on the paging area formed by the mobile terminal based on the algorithm (dynamic paging area configuration algorithm, PCA 920 operates to receive movement reports from mobility reporter agents of mobile hosts in communication with last hop router 904, 906. A PCA is notified by a dormant monitoring agent (DMA) of a packet arrival to a mobile host and sends paging clustering messages to the local paging agent (LPA) clusters. Once the PCA 920 receives positive or negative results from LPA clusters, the PCA notifies the DMA para. # 0064-0070, 0086-0090, 0111-0114, fig. 9-12).

Regarding claim 6 Funato teaches a processing language specifying unit configured to specify, to the mobile terminal, a processing language in which an algorithm for forming the paging area is written; wherein the algorithm specifying unit is configured to specify the algorithm written in the processing language when a result of determination that the processing language can be handled is received from the mobile terminal (para. # 0064, 0083-0086, 0145, fig. 9 and 20).

Regarding claim 7 Funato teaches a mobile terminal configured to implement paging control in which, when a controller apparatus receives a packet addressed to a mobile terminal, the controller apparatus transmits a paging notification packet to a paging area of the mobile terminal, so as to obtain location information on the mobile

Art Unit: 2617

terminal and to determine a forwarding destination of the packet, the mobile terminal comprising:

a paging area forming unit having a plurality of algorithms for forming the paging area (para. # 0064, 0086, 0145, fig. 9 and 20);

wherein the paging area forming unit is configured to form the paging area of the mobile terminal by an algorithm specified by the controller apparatus (dynamic paging area configuration algorithm, PCA 920 operates to receive movement reports from mobility reporter agents of mobile hosts in communication with last hop router 904, 906. A PCA is notified by a dormant monitoring agent (DMA) of a packet arrival to a mobile host and sends paging clustering messages to the local paging agent (LPA) clusters. Once the PCA 920 receives positive or negative results from LPA clusters, the PCA notifies the DMA para. # 0064-0070, 0086-0090, 0111-0114, fig. 9-12 and 20).

Regarding claim 8 Funato teaches wherein the paging area forming unit is configured to form the paging area of the mobile terminal, in accordance with a communicating use or movement characteristics of the mobile terminal (para. # 0064, 0083-0086, 0145).

Regarding claim 9 Funato teaches a mobile terminal configured to implement paging control in which, when a controller apparatus receives a packet addressed to a mobile terminal, the controller apparatus transmits a paging notification packet to a paging area of the mobile terminal, so as to obtain location information on the mobile terminal and to determine a forwarding destination of the packet, the mobile terminal comprising:

a paging area forming unit having algorithms for forming the paging area; and a transmitting unit configured to transmit, to the controller apparatus, information on the paging area formed by the paging area forming unit (para. # 0064-0069, 0083-0086, 0145, fig. 9 and 20);

wherein, when information on the paging area different from the information on the paging area formed by the paging area forming unit is received from the controller apparatus, the transmitting unit is configured to transmit, to a different controller apparatus, the information on the paging area formed by the paging area forming unit (dynamic paging area configuration algorithm, PCA 920 operates to receive movement reports from mobility reporter agents of mobile hosts in communication with last hop router 904, 906. A PCA is notified by a dormant monitoring agent (DMA) of a packet arrival to a mobile host and sends paging clustering messages to the local paging agent (LPA) clusters. Once the PCA 920 receives positive or negative results from LPA clusters, the PCA notifies the DMA para. # 0064-0070, 0086-0090, 0111-0114), fig. 9-12 and 20).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHAWAR IQBAL whose telephone number is (571)272-7909. The examiner can normally be reached on 9 am to 6.30 pm Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, GEORGE ENG can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George Eng/
Supervisory Patent Examiner, Art Unit 2617

Khawar Iqbal
Examiner
Art Unit 2617